

IN THE CLAIMS:

1 - 4 (cancelled)

5. (currently amended) In a power supply circuit for generating a supply voltage based on an input constant voltage and supplying the supply voltage to a load, the improvements comprising:

a delay circuit configured to delay the input constant voltage;

an output circuit configured to generate the supply voltage from the input constant voltage delayed by the delay circuit and to supply the generated supply voltage to the load; and

~~a bootstrap circuit configured to heighten an input impedance of the output circuit and substantially reduce shock noise~~

a current generation circuit generating a current based on the supply voltage that is generated by said output circuit and supplying the generated current to said output circuit as a drive current, wherein said current generation circuit includes:

a first transistor whose collector and emitter are connected in serial to a current path to the output circuit.

a second transistor whose collector and emitter are located between a base of the first transistor and the input constant voltage; and

a third transistor whose collector is connected to a connection point between the output circuit and the delay circuit, said third transistor forming a current mirror together with the second transistor, whereby said drive current is supplied to the connection point between the output circuit and the delay circuit from the collector of the third transistor.

6. (currently amended) The power supply circuit claimed in claim 5, wherein a current supplied to an input of the output circuit from the bootstrap current generation circuit is set to a current value to drive the output circuit.

7. (currently amended) The power supply circuit claimed in claim 5, wherein the bootstrap current generation circuit includes a circuit component which has the same electrical characteristic as the output circuit, is connected to the output in series, and supplies a current to an input of the output circuit, said current having the same magnitude as a drive current for the circuit component.

8. (previously presented) The power supply circuit claimed in claim 5, wherein the delay circuit comprises:

a resistance serially provided between an input terminal to which the input constant voltage is applied and the output circuit; and

a capacitance element provided between a connection point of said resistance and the output circuit and a base potential terminal serving as a base potential and delaying the input constant voltage.

9. (currently amended) The power supply circuit claimed in claim 5, wherein, when the supply voltage is supplied to a plurality of loads, the delay circuit and the output circuit and the bootstrap current generation circuit are provided for each of the loads.

10. (cancelled)

11 (cancelled)

12. (cancelled)

13. (currently amended) The power supply circuit claimed in claim 12 5, wherein electrical characteristics of the transistors are the same.

14. (cancelled)

15. (cancelled)

16. (currently amended) The power supply circuit claimed in claim 13, wherein the bootstrap current generation circuit is connected directly to the output circuit.

17. (cancelled)

18. (cancelled)